

Texas Success Initiative
Sample Questions
Data Analysis, Statistics, and Probability Sample Questions

These practice tests are solely intended to complement your studying.

There is no guarantee, implied or otherwise, that these alone will enable you to pass.

MULTIPLE CHOICE. Choose the one alternative that best completes the statement or answers the question.

- 1) A bag contains 9 red marbles, 4 blue marbles, and 2 green marbles. What is the probability of choosing a blue marble when one marble is drawn?

A) $\frac{4}{15}$ B) $\frac{2}{15}$
C) $\frac{3}{5}$ D) $\frac{4}{13}$

- 2) A bag contains 9 red marbles, 3 blue marbles, and 8 green marbles. What is the probability of choosing a blue marble when one marble is drawn?

A) $\frac{9}{20}$ B) $\frac{2}{5}$
C) $\frac{1}{4}$ D) $\frac{3}{20}$

- 3) A bag contains 5 red marbles, 3 blue marbles, and 1 green marble. What is the probability of choosing a marble that is not blue when one marble is drawn from the bag?

A) 6 B) $\frac{1}{3}$ C) $\frac{3}{2}$ D) $\frac{2}{3}$

- 4) A lottery game has balls numbered 1 through 21. What is the probability of selecting an even numbered ball or a 11?

A) $\frac{3}{7}$ B) $\frac{10}{21}$
C) $\frac{11}{21}$ D) $\frac{10}{11}$

- 5) A 6-sided die is rolled. What is the probability of rolling a number that is even and a 5?

A) 1 B) $\frac{1}{6}$ C) 0 D) $\frac{1}{2}$

- 6) A restaurant offers a choice of 3 salads, 10 main courses, and 4 desserts. How many possible choices for a meal are there (including single items)?

A) 202 possible meals
B) 179 possible meals
C) 219 possible meals
D) 137 possible meals

- 7) There are 5 roads leading from Bluffton to Hardeeville, 9 roads leading from Hardeeville to Savannah, and 3 roads leading from Savannah to Macon. How many ways are there to get from Bluffton to Macon?

A) 17 ways B) 135 ways
C) 270 ways D) 45 ways

Draw a tree diagram for the experiment. Then use the diagram to find the number of possible outcomes.

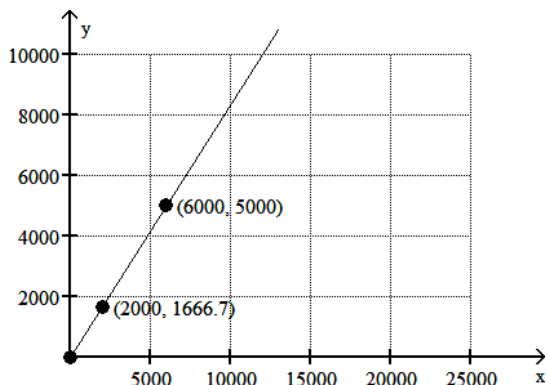
- 8) Roll two six-sided dice.

A) 2 outcomes B) 1 outcome
C) 12 outcomes D) 36 outcomes

- 9) Pick a number from 1, 2, 3 or 4, and then toss a coin.

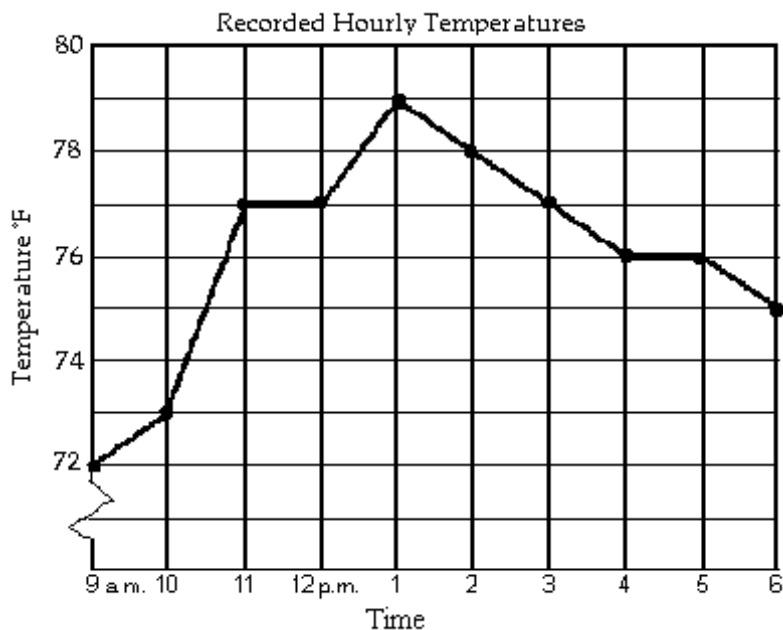
A) 6 outcomes B) 2 outcomes
C) 1 outcome D) 8 outcomes

- 10) The graph shows the total cost y (in dollars) of owning and operating a minivan where x is the number of miles driven. Find the slope of the line and write the slope as a rate of change.



- A) \$22.00 per mile
 B) \$0.83 per mile
 C) \$1.20 per mile
 D) cannot be determined

The line graph shows the recorded hourly temperatures in degrees Fahrenheit at an airport.



- 11) At what time was the temperature the highest?
 A) 5 p.m.
 B) 2 p.m.
 C) 11 a.m.
 D) 1 p.m.
- 12) At what time was the temperature its lowest?
 A) 6 p.m.
 B) 1 p.m.
 C) 9 a.m.
 D) 4 p.m.

- 13) What temperature was recorded at 3 p.m.?
 A) 78 ° F
 B) 75 ° F
 C) 79 ° F
 D) 77 ° F
- 14) During which hour did the temperature increase the most?
 A) 9 a.m. to 10 a.m.
 B) 1 p.m. to 2 p.m.
 C) 10 a.m. to 11 a.m.
 D) 12 p.m. to 1 p.m.
- 15) At what time was the temperature 72°?
 A) 9 a.m. and 10 a.m.
 B) 10 a.m.
 C) 6 p.m.
 D) 9 a.m.
- 16) During which two hour period did the temperature increase the most?
 A) 12 p.m. to 2 p.m.
 B) 9 a.m. to 11 a.m.
 C) 10 a.m. to 11 a.m.
 D) 10 a.m. to 12 p.m.

Answer Key

Testname: TSI DATA ANALYSIS, STATISTICS, AND PROBABILITY SAMPLE QUESTIONS

- 1) A
- 2) D
- 3) D
- 4) C
- 5) C
- 6) C
- 7) B
- 8) D
- 9) D
- 10) B
- 11) D
- 12) C
- 13) D
- 14) C
- 15) D
- 16) B